

What is claimed is:

1 1. A near shore port security barrier for protecting a
2 vessel docked at a port facility from an incoming
3 waterborne craft which is being used to inflict damage on
4 said vessel, said near shore port security barrier
5 comprising:

6 (a) a plurality of floating barrier modules connected
7 to one another to form a floating security barrier
8 which is positioned adjacent a hull for said vessel,
9 said floating barrier being adapted to protect said
10 vessel from said incoming waterborne craft.

11 (b) a mooring system for said near shore port security
12 barrier, said mooring system having a plurality of
13 mooring lines and a plurality of anchors which rest on
14 the ocean floor, each of said mooring lines having one
15 end connected to said near shore port security barrier
16 and the end connected to one of said plurality of
17 anchors to secure the near shore port security barrier
18 in a fixed location relative to vessel;

19 (c) each of said plurality of floating barrier modules
20 including:

21 (i) a first pontoon positioned adjacent the hull of
22 said vessel;

23 (ii) a second pontoon positioned parallel to said first
24 pontoon away from the hull of said vessel;

25 (iii) first and second spaced apart cross members
26 mounted on an upper of said first and second and
27 attached thereto, said first pontoon, said second
28 pontoon and said first and second cross members being
29 configured to form a rectangular shape floating base
30 for each of said floating barrier modules;

31 (iv) a generally rectangular shaped wire mesh barrier
32 fence extending vertically upward from said second
33 pontoon, said wire mesh barrier fence having a fixed
34 portion and a flexible portion, the flexible portion of
35 said wire mesh fence overlapping the fixed portion of
36 the wire mesh barrier fence for an adjacent floating
37 barrier module of said plurality of floating barrier
38 module; and

39 (v) a wire mesh net support structure extending
40 vertically upward from said second pontoon, said wire
41 mesh net support structure being attached to said
42 second pontoon, said wire mesh net support structure
43 having said wire mesh barrier fence attached thereto;
44 and

45 (d) a fendering system affixed to said plurality of

46 floating barrier modules, said fendering system
47 engaging the hull of said vessel, said fendering system
48 being retractable from the hull of said vessel, said
49 fendering system allowing the floating barrier modules
50 of said near shore port security barrier to be moored
51 against the side of said vessel without damaging the
52 hull of said vessel.

1 2. The near shore port security barrier of claim 1 wherein
2 wherein the wire mesh barrier fences for said plurality of
3 floating barrier modules form a continuous barrier fence
4 which runs the length of said near shore port security
5 barrier.

1 3. The near shore port security barrier of claim 1 wherein
2 said wire mesh barrier fence comprises 316 stainless steel
3 wire mesh, said 316 stainless steel wire mesh being for
4 fence material to eliminate corrosion maintenance.

1 4. The near shore port security barrier of claim 1 wherein
2 the flexible portion of said barrier fence for each of said
3 floating barrier modules comprises a rectangular shaped
4 upper and lower swing gates and a fence support post

5 attached to said second pontoon, said upper and lower swing
6 gates being rotatably mounted on said fence support post to
7 allow rotational movement of said upper and lower swing
8 gates about said fence support post, said upper and lower
9 swing gates including a torsion bar spring assembly which is
10 attached to said fence support post, the torsion bar spring
11 assembly for said upper and lower swing gates insuring that
12 said upper and lower swing gates remains flush with the
13 fixed portion of said adjacent floating barrier module.

1 5. The near shore port security barrier of claim 1 wherein
2 said fendering system for each of said floating barrier
3 modules comprises:

4 first and second fenders one of said pair of fenders
5 being positioned at each end of said first
6 pontoon; and

7 first and second U-shaped support brackets attached to
8 said first pontoon, said first and second U-shaped
9 support brackets having a shaft;

10 the shaft of said first U-shaped support having said

11 first fender rotatably mounted thereon and the
12 shaft of said second support bracket having said
13 second fender rotatably mounted thereon;

14 said first and second fenders of each of said floating
15 barrier modules engaging the hull of said vessel,
16 said first and second fenders of each of said
17 floating barrier modules being retractable from
18 the hull of said vessel.

1 6. The near shore port security barrier of claim 1 wherein
2 each of said floating barrier modules has an overall length
3 of approximately fifty feet and an overall width of
4 approximately twenty seven feet eleven inches.

1 7. The near shore port security barrier of claim 1 wherein
2 the height of said barrier fence is approximately fourteen
3 feet six inches above a water line for said near shore port
4 security barrier system.

1 8. The near shore port security barrier of claim 1 wherein
2 each cross member of said floating barrier module has a pair
3 of towing eyes attached to a outside surface of said cross
4 member, said pair of towing eyes for each cross member being
5 adapted to receive a tow line to allow said floating barrier
6 module to moved from a first location to a second location.

1 9. The near shore port security barrier of claim 1 wherein
2 the wire mesh net support structure for the fixed portion of
3 said wire mesh barrier fence comprises:

4 a plurality of fence screen support post attached to
5 said second pontoon wherein said plurality of
6 fence screen support post extend vertically upward
7 from said second pontoon, said plurality of fence
8 screen support post being spaced apart
9 approximately nine feet from one another, said
10 plurality of fence screen support post having said
11 wire mesh barrier fence attached thereto;
12 a plurality of tension braces diagonally positioned
13 between and connected to said fence screen support
14 post which are adjacent to one another; and
15 a plurality of tension braces vertically positioned
16 between and connected to said fence screen support
17 post which are adjacent to one another wherein
18 said plurality of tension braces are located at
19 the top of said wire mesh barrier fence of each of
20 said floating barrier modules.

1 10. The near shore port security barrier of claim 1 wherein
2 said first pontoon, said second pontoon and one of said

3 first and second cross members for each of said floating
4 barrier modules has a fiberglass walkway grating mounted on
5 a top side thereof to allow for a user to access said near
6 port security barrier.

1 11. A near shore port security barrier for protecting a
2 vessel docked at a port facility from an incoming
3 waterborne craft which is being used to inflict damage on
4 said vessel, said near shore port security barrier
5 comprising:

6 (a) a plurality of floating barrier modules connected
7 to one another to form a floating security barrier
8 which is positioned adjacent a hull for said vessel,
9 said floating barrier being adapted to protect said
10 vessel from said incoming waterborne craft.

11 (b) a mooring system for said near shore port security
12 barrier, said mooring system having a plurality of
13 mooring lines and a plurality of anchors which rest on
14 the ocean floor, each of said mooring lines having one
15 end connected to said near shore port security barrier
16 and the end connected to one of said plurality of
17 anchors to secure the near shore port security barrier
18 in a fixed location relative to vessel;

19 (c) each of said plurality of floating barrier modules
20 including:

21 (i) a first pontoon positioned adjacent the hull of
22 said vessel;

23 (ii) a second pontoon positioned parallel to said first
24 pontoon away from the hull of said vessel;

25 (iii) first and second spaced apart cross members
26 mounted on an upper of said first and second and
27 attached thereto, said first pontoon, said second
28 pontoon and said first and second cross members being
29 configured to form a rectangular shape floating base
30 for each of said floating barrier modules;

31 (iv) a generally rectangular shaped wire mesh barrier
32 fence extending vertically upward from said second
33 pontoon, said wire mesh barrier fence having a fixed
34 portion and a flexible portion, the flexible portion of
35 said wire mesh barrier fence overlapping the fixed
36 portion of the wire mesh barrier fence for an adjacent
37 floating barrier module of said plurality of floating
38 barrier module; and

39 (v) a wire mesh net support structure extending
40 vertically upward from said second pontoon, said wire
41 mesh net support structure being attached to said

42 second pontoon, said wire mesh net support structure
43 having said wire mesh barrier fence attached thereto;
44 (d) a fendering system affixed to said plurality of
45 floating barrier modules, said fendering system
46 engaging the hull of said vessel, said fendering system
47 being retractable from the hull of said vessel, said
48 fendering system allowing the floating barrier modules
49 of said near shore port security barrier to be moored
50 against the side of said vessel without damaging the
51 hull of said vessel
52 (e) a first floating barrier module of said plurality
53 of floating barrier modules having a front end wire
54 mesh barrier fence and support structure which extends
55 vertically upward from the first cross member for said
56 first floating barrier module; and
57 (f) a second floating barrier module of said plurality
58 of floating barrier modules having a rear end wire mesh
59 barrier fence and support structure which extends
60 vertically upward from the second cross member for said
61 second floating barrier module wherein said front end
62 wire mesh barrier fence and support structure is
63 positioned in proximity to the bow of said vessel and
64 said rear end wire mesh barrier fence and support

65 structure is positioned in proximity to the stern of
66 said vessel.

1 12. The near shore port security barrier of claim 11 wherein
2 wherein the wire mesh barrier fences for said plurality of
3 floating barrier modules form a continuous barrier fence
4 which runs the length of said near shore port security
5 barrier.

1 13. The near shore port security barrier of claim 11 wherein
2 said wire mesh barrier fence comprises 316 stainless steel
3 wire mesh, said 316 stainless steel wire mesh being for
4 fence material to eliminate corrosion maintenance.

1 14. The near shore port security barrier of claim 11 wherein
2 the flexible portion of said barrier fence for each of said
3 floating barrier modules comprises a rectangular shaped
4 upper and lower swing gates and a fence support post
5 attached to said second pontoon, said upper and lower swing
6 gates being rotatably mounted on said fence support post to
7 allow rotational movement of said upper and lower swing
8 gates about said fence support post, said upper and lower
9 swing gates including a torsion bar spring assembly which is

10 attached to said fence support post, the torsion bar spring
11 assembly for said upper and lower swing gates insuring that
12 said upper and lower swing gates remains flush with the
13 fixed portion of said adjacent floating barrier module.

1 15. The near shore port security barrier of claim 11 wherein
2 said fendering system for each of said floating barrier
3 modules comprises:

4 first and second fenders one of said pair of fenders
5 being positioned at each end of said first
6 pontoon; and
7 first and second U-shaped support brackets attached to
8 said first pontoon, said first and second U-shaped
9 support brackets having a shaft;
10 the shaft of said first U-shaped support having said
11 first fender rotatably mounted thereon and the
12 shaft of said second support bracket having said
13 second fender rotatably mounted thereon;
14 said first and second fenders of each of said floating
15 barrier modules engaging the hull of said vessel,
16 said first and second fenders of each of said
17 floating barrier modules being retractable from
18 the hull of said vessel.

1 16. The near shore port security barrier of claim 11 wherein
2 each of said floating barrier modules has an overall length
3 of approximately fifty feet and an overall width of
4 approximately twenty seven feet eleven inches.

1 17. The near shore port security barrier of claim 11 wherein
2 the height of said barrier fence is approximately fourteen
3 feet six inches above a water line for said near shore port
4 security barrier system.

1 18. The near shore port security barrier of claim 11 wherein
2 each cross member of said floating barrier module has a pair
3 of towing eyes attached to a outside surface of said cross
4 member, said pair of towing eyes for each cross member being
5 adapted to receive a tow line to allow said floating barrier
6 module to moved from a first location to a second location.

1 19. The near shore port security barrier of claim 11 wherein
2 the wire mesh net support structure for the fixed portion of
3 said wire mesh barrier fence comprises:

4 a plurality of fence screen support post attached to
5 said second pontoon wherein said plurality of

6 fence screen support post extend vertically upward
7 from said second pontoon, said plurality of fence
8 screen support post being spaced apart
9 approximately nine feet from one another, said
10 plurality of fence screen support post having said
11 wire mesh barrier fence attached thereto;
12 a plurality of tension braces diagonally positioned
13 between and connected to said fence screen support
14 post which are adjacent to one another; and
15 a plurality of tension braces vertically positioned
16 between and connected to said fence screen support
17 post which are adjacent to one another wherein
18 said plurality of tension braces are located at
19 the top of said wire mesh barrier fence of each of
20 said floating barrier modules.

1 20. The near shore port security barrier of claim 1 wherein
2 said first pontoon, said second pontoon and one of said
3 first and second cross members for each of said floating
4 barrier modules has a fiberglass walkway grating mounted on
5 a top side thereof to allow for a user to access said near
6 port security barrier.